

**AMENDMENTS TO THE SPECIFICATION:**

Please replace the paragraph beginning on page 6, line 8 with the following amended paragraph:

--Two boreholes 34 and 35 are made in housing shell 29, upper borehole 34 preferably being situated above connector plug 24 and lower borehole 35 being situated below connector plug 24. The foam-forming material is introduced via lower radial borehole 35, and lower borehole 35 is subsequently sealed. The water ( $H_2O$ ) contained in the orthosilicic acid is evaporated by heating the sensor to a temperature above 100°C and ~~swells~~ swelling the foam being formed. The evaporating water exits via upper borehole [[39]] 34. After completion of the heating process, free space 31 is fully filled with a foam 33' made of silicon dioxide ( $SiO_2$ ), whose porosity is influenceable by its degree of dryness. A higher firmness of foam 33' requires a lower residual moisture. In addition to influencing the foam by the residual moisture, the pore size and thus the firmness of the foam may also be influenced by the amount of the colloidal solution filled into free space 31 as well as the clear cross section of lower borehole 35. Borehole 35 preferably has a diameter between 1 mm and 3 mm.--.